REMARKS

The final Office Action dated October 18, 2007 ("Office Action"), the Advisory Action dated January 10, 2008 ("Advisory Action") and Notice of Panel Decision from Pre-Appeal Brief Review dated May 27, 2008 have been carefully reviewed and considered.

Claims 1-20 and 22 were pending in the present application. Claims 18-20 and 22 were withdrawn from consideration.

Claim 2 has been cancelled without prejudice. Claim 1 has been amended to further clarify the Applicants' invention. Specifically, claim 1 has been amended to specify that the exchange matrix drug complex further comprises a porous diffusion-controlling membrane coating. Support for the amendment can be found throughout the specification, for example, on page 15, paragraph [0072] and originally filed claim 2. No new matter has been added.

Upon entry of the amendment presented herein, claims 1, 3-20 and 22 will be pending in this application. Reconsideration of the present application in view of the following remarks is respectfully requested.

I. THE REJECTION OF CLAIMS 1-17 UNDER 35 U.S.C. § 112, FIRST PARAGRAPH SHOULD BE WITHDRAWN

Claims 1-17 are rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement. Applicants respectfully disagree and submit that the Examiner fails to provide any evidence that one skilled in the art would not recognize the claimed subject matter in the instant specification for the reasons set forth below.

Under 35 U.S.C. § 112, First Paragraph, "there is a strong presumption that an adequate written description of the claimed invention is present when the application is filed." *In re Wertheim*, 541 F.2d 257, 263, 191 USPQ 90, 97 (CCPA 1976). Prior to determining whether the disclosure satisfies the written description requirement for the claimed subject matter, the examiner should review the claims and the entire specification." MPEP 2163(II)(*A*)(2). Such a review is conducted from the standpoint of one of skill in the art at the time the application was filed. *See, e.g., Wang Labs. v. Toshiba Corp.*, 993 F.2d 858, 865, 26 USPQ2d 1767, 1774 (Fed. Cir. 1993). Further, information which is well known in the art need not be described in detail in the specification. MPEP 2163(II)(*A*)(2); *see, e.g., Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1379-80, 231 USPQ

81, 90 (Fed. Cir. 1986). *See also Falko-Gunter Falkner v. Inglis*, 448 F.3d 1357, 1366, 76 USPQ2d 1001 (Fed. Cir. 2006) (affirming that "the patent specification is written for a person of skill in the art, and such a person comes to the patent with the knowledge of what has come before").

Independent claim 1 recites a dispersion medium comprising a pharmaceutically acceptable polyelectrolyte having the same charge as the electrolytic drug. The Examiner alleges that the specification does not describe the ions that may be associated with the polyelectrolyte, and that the use of any polyelectrolyte without identifying the ions associated with it would not lead the artisan away from using polyelectrolytes having medically unsuitable Hg or Ag ions (Final Office Action at 2-3). Applicants respectfully submit that the specification provides an adequate written description for pharmaceutically acceptable polyelectrolytes that have the same charge as the electrolytic drug. Specifically, the specification discloses non-limiting examples of positively-charged and negatively-charged polyelectrolytes that can be used in the Applicants' invention (*see* Specification at 17, *ll.* 17-32). The specification also discloses non-limiting examples of pharmaceutically acceptable ions (*see* Specification at 10, *ll.* 8-12). In addition, pharmaceutically acceptable polyelectrolytes and pharmaceutically acceptable ions (that may be associated with such polyelectrolytes) are well known in the art (*see, e.g.*, U.S. Patent No. 5,882,677 to Kupperblatt, col. 5, *ll.* 36-59).[1] Moreover, one of ordinary skill in the art would know not to use polyelectrolytes associated with ions not suitable for pharmaceutical compositions, such as Hg and Ag ions, since polyelectrolytes with Hg or Ag ions are well known in the art to be medically unacceptable (*e.g.*, as taught in U.S. Patent No. 5,882,677 to Kuperblatt, col. 5, *ll.* 32-38). Thus, the specification need not describe what is known and described in the art. *See Falko-Gunter,* 448 F.3d at 1366. Therefore, the Examiner failed to present evidence why persons skilled in the art at the time of the invention would not recognize in the disclosure a description of the invention defined by the claims. Accordingly, the Examiner fails to establish that the claimed invention is not described and the rejection should be withdrawn.

[1] *See also* U.S. Patent No. 5,855,895 to Andrianov *et al.*, col. 4, *ll.* 37-44; U.S. Patent No. 5,977,133 to Fung *et al.*, col. 2, *ll.* 29-38; U.S. Patent No. 5,955,054 to Hartmann, col. 2, *ll.* 10-14; U.S. Patent No. 6,352,970 to Ke *et al.*, col. 7, *ll.* 13-18, which are not of record and cited to supplement the disclosure of Kupperblatt.

II. THE REJECTIONS OF CLAIMS 1-17 UNDER 35 U.S.C. § 102(B) SHOULD BE WITHDRAWN

Claims 1-3, 5, 6, 8, 13, 14 and 16 are rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Cuna *et al.* ("Cuna") ("Controlled-release liquid suspensions based on ion-exchange particles entrapped within acrylic microcapsule," in International Journal of Pharmaceutics 199 (2000), pp 151-158). Claims 1-17 are rejected under 35 U.S.C. § 102(b) as allegedly anticipated by U.S. Patent No. 4,894,239 ("Nonomura"). Applicants respectfully submit that each cited reference fails to disclose each and every element of the amended claim 1 and its dependent claims for the reasons set forth below. As such, the references cannot be anticipatory.

The standard for anticipation is set forth in *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987): "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *See also Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989) (holding that "[t]he identical invention must be shown in as complete detail as is contained in the...claim"). *See also In re Spada*, 911 F.2d 705, 708, 15 U.S.P.Q.2d 1655, 1657 (Fed. Cir. 1990); *Crown Operations International, Ltd. v. Solutia Inc.*, 289 F.3d 1367, 1375, 62 U.S.P.Q.2d 1917, 1921 (Fed. Cir. 2002).

A. Cuna *et al.* ("Cuna") Does Not Anticipate Claims 1, 3, 5-6, 8, 13-14 and 16 Under 35 U.S.C. § 102(b)

First, Cuna cannot anticipate amended claim 1, and its dependent claims 3, 5, 6, 8, 13, 14 and 16. Independent claim 1 recites a liquid form controlled release drug composition that comprises, *inter alia*, (a) a dispersed phase that includes an ion-exchange matrix drug complex, and wherein the exchange matrix drug complex further comprises a porous diffusion-controlling membrane coating; and (b) a dispersion medium comprising a pharmaceutically acceptable polyelectrolyte having the same charge as the electrolytic drug.

The Examiner alleged that a Eudragit polymer used during an intermediate microencapsulation process described in Cuna meets the limitation of the claimed polyelectrolyte (Final Office Action at 5-6). Applicants disagree for the reasons set forth below. During that intermediate microencapsulation process of Cuna, terbutaline-loaded ion-exchange resins are suspended in a mixture of Eudragit and acetone or methylene chloride, followed by emulsification using oil-in-oil or oil-in-water solvent evaporation methods to produce Eudragit microcapsules (Cuna at 153). Firstly, the intermediate microencapsulation composition of Cuna containing, *inter alia*, solvents – acetone or methylene chloride – that are removed by evaporation (Cuna at 153), is

neither pharmaceutically acceptable nor suitable as a drug composition. Thus, the intermediate microencapsulation composition of Cuna does not meet the limitation of the presently claimed "liquid form *controlled release drug composition*." Indeed, Applicants' disclosure teaches the use of liquid form controlled release drug compositions for medical uses[2], for which the intermediate composition of Cuna is not suitable. Secondly, the charged Eudragit polymers of Cuna encapsulate the drug-loaded ion-exchange resin, and thus, reside in the dispersed phase and *not in the dispersion medium* (Cuna at 153). Finally, the dispersed phase of this microencapsulation composition of Cuna is emulsified in the dispersion medium of liquid paraffin or an aqueous solution that *do not comprise* a pharmaceutically acceptable *polyelectrolyte having the same charge as the electrolytic drug* as recited in claim 1. Therefore, the intermediate microencapsulation composition of Cuna is silent with regard to at least three limitations of the claimed invention.

The Examiner's assertion that the claims are allegedly anticipated by the final product of Cuna is also wrong. The final product of Cuna – microcapsules containing the terbutaline-loaded ion-exchange resin encapsulated with Eudragit and suspended in HPMC (Cuna at 154) – cannot meet the limitation of the Applicants' claimed invention because its dispersion medium contains aqueous solution of HPMC. HPMC is a neutral polymer and *not* a pharmaceutically acceptable *polyelectrolyte having a charge*, much less a *polyelectrolyte having the same charge as the* cationic *drug* terbutaline used in Cuna.[3] For the foregoing reasons, Cuna fails to teach at least one essential element of the Applicants' invention, and thus, fails to anticipate claims 1, 3, 5, 6, 8, 13, 14 and 16.

B. U.S. Patent No. 4,894,239 to Nonomura *et al.* Does Not Anticipate Claims 1, 3-17 Under 35 U.S.C. § 102(b)

Second, Nonomura also cannot anticipate amended claim 1, and its dependent claims 3-17. The Examiner alleged that Nonomura anticipates claims 1-17 because the ion-exchange resin preparation of Nonomura is dispersed in solution of Eudragit polyelectrolytes during an intermediate microencapsulation process (Final Office Action at 9). During that process, the drug-loaded resin is dispersed in Eudragit and organic solvents, *e.g.* chloroform and cyclohexane, to create a slurry, which is then subjected to spray drying to yield microcapsules (Nonomura, col. 5-12, Examples 1-4, 6-8). As in Cuna, the intermediate microencapsulation composition of Nonomura contains organic solvents, *e.g.* chloroform and cyclohexane, and is neither pharmaceutically acceptable nor suitable as a drug composition. The Examiner argued that the Applicants' claims do not exclude organic solvents as dispersion medium (Advisory Action at 2). This is irrelevant. The claims require a *drug*

[2] *E.g.*, for administration to a patient (see Specification at 3, *ll.* 28-34; and 28, *ll.* 1-2).
[3] Applicants submitted evidence to show that HPMC is indeed a neutral polymer, and not a polyelectrolyte having a charge (Response filed December 18, 2007 at 10, Appendix A).

composition (*e.g.* a composition suitable for pharmaceutical use or administration to a patient) notwithstanding the presence or absence of organic solvents. The intermediate composition of Nonomura is not pharmaceutically acceptable, and therefore it *does not comprise a controlled release drug composition*. Thus, Nonomura fails to teach every element recited in amended claim 1.

The final product of Nonomura also cannot anticipate the claims. The Nonomura sustained-release microcapsule preparation consists of an ion exchange resin and a drug coated with a water-permeable polymer that is formulated into oral suspensions by dispersing microcapsules in syrup of purified water with additives (*i.e.* benzoic acid, butyl p-hydroxybenzoate, locust bean gum, caffeins anhydrate, guaiacol glycerylether, D-sorbitol. sucrose, and Tween-80) (Nonomura, col. 12-13, Ex. 9), and thus *does not contain a dispersion medium comprising* a pharmaceutically acceptable *polyelectrolyte having the same charge as the electrolytic drug*. Thus, Nonomura does not disclose at least one essential element of the Applicants' invention, and therefore, does not anticipate the Applicants' claimed invention.

III. THE DOUBLE PATENTING REJECTION SHOULD BE HELD IN ABEYANCE

Claims 1-17 are rejected on the ground of nonstatutory obviousness-type double patenting as allegedly unpatentable over claims 1-29 of co-pending Application Nos. 11/150,937 (US 2006/0018972) and 11/198,937 (US 2006/0134148) in view of WO 95/19184. Applicants respectfully disagree with the rejection, and respectfully request to hold the rejection in abeyance.

Applicants disagree with the bases of the Examiner's nonstatutory obvious-type double patenting rejection over claims 1-29 of co-pending applications Nos. 11/150,572 (US2006/0018972) and 11/198,937 (US2006/0134148) to Hollenbeck in view of WO 95/19184 to Cohen *et al*. Applicants, however, respectfully request to hold this provisional double-patenting rejection in abeyance. The MPEP provides that "if a 'provisional' nonstatutory obviousness-type double patenting rejection is the only rejection remaining in the earlier-filed of the two pending applications, while the later-filed application is rejectable on other grounds, the examiner should withdraw that rejection and permit the earlier-filed application to issue as a patent without a terminal disclaimer." MPEP 804 (I)(B)(1).

The instant rejection involves pending applications rather than an issued patent, and the application under review is the earlier-filed of the pending applications, while the later-filed applications are rejectable on other grounds. Thus, if a provisional nonstatutory obviousness-type double patenting rejection is the only rejection remaining in the application under review, Applicants respectfully request the review board to withdraw the rejection and

permit this application to issue as a patent without a terminal disclaimer, and then assert the double patenting rejection in the remaining pending applications, if applicable.

CONCLUSION

In light of the above-presented amendments and remarks, it is believed that the claim rejections have been overcome and that the present application is in condition for allowance. Should the Examiner not agree with Applicants' position, then a personal or telephonic interview is respectfully requested to discuss any remaining issues and to expedite the eventual allowance of the application.

Respectfully submitted,

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